

ATTACHMENT A

Amendments to the Specification

Please amend the marked paragraphs in the manner set forth below:

Please amend the paragraph beginning at page 7, line 18, as follows:

[0019] In the preferred method, using PCR, the first subdomain of *map* can be amplified such as from *S. aureus* FDA 574 genomic DNA and subcloned into the *E. coli* expression vector PQE-30 (~~Qiagen~~ QIAGEN™), which allows for the expression of a recombinant fusion protein containing six histidine residues. This vector may be subsequently transformed into a suitable *E. coli* strain, grown in a fermentor to a suitable optical density (e.g., OD₆₀₀) and induced with a suitable compound such as 0.2 mM isopropyl-1-beta-D galactoside (IPTG). The cells may then be harvested using a hollow-fiber assembly (e.g., of pore size 0.45 μm) and the cell paste frozen prior to lysing using a suitable press (e.g., 2 passes through a French Press @ 1100psi). Lysed cells can then be spun down to remove cell debris, and isolating a suitable MAP protein, or a suitable subdomain such as Map10, using suitable methods such as chelating columns and appropriate washing and eluting. The MAP protein may also undergo an endotoxin removal protocol. Additional steps may be carried as needed to further purify the product, and antibodies generated to the purified MAP protein as described further below. One such Map10 protein isolated through this method has the sequence as set forth in SEQ ID NO:2, and is encoded by nucleic acids having the sequence as set forth in SEQ ID NO:1, or degenerates thereof.

Please amend the paragraph beginning at Page 22, line 2 as follows:

[0048] Using PCR, the first subdomain of *map* was amplified from *S. aureus* FDA 574 genomic DNA and subcloned into the *E. coli* expression vector PQE-30 (Qiagen~~QIAGEN~~TM), which allows for the expression of a recombinant fusion protein containing six histidine residues. This vector was subsequently transformed into the *E. coli* strain ATCC 55151, grown in a 15-liter fermentor to an optical density (OD₆₀₀) of 0.7 and induced with 0.2 mM isopropyl-1-beta-D galactoside (IPTG) for 4 hours. The cells were harvested using an AG Technologies hollow-fiber assembly (pore size of 0.45 µm) and the cell paste frozen at -80° C. Cells were lysed in 1X PBS (10mL of buffer/1 g of cell paste) using 2 passes through the French Press @ 1100psi. Lysed cells were spun down at 17,000rpm for 30 minutes to remove cell debris. Supernatant was passed over a 5-mL HiTrap Chelating (Pharmacia) column charged with 0.1M NiCl₂. After loading, the column was washed with 5 column volumes of 10mM Tris, pH 8.0, 100mM NaCl (Buffer A). Protein was eluted using a 0-100% gradient of 10mM Tris, pH 8.0, 100mM NaCl, 200mM imidazole (Buffer B) over 30 column volumes. Map10 eluted at ~13% Buffer B (~26mM imidazole). Absorbance at 280nm was monitored. Fractions containing Map10 were dialyzed in 1x PBS.

Please amend the paragraph beginning at Page 22, line 19 as follows:

[0049] The protein was then put through an endotoxin removal protocol. Buffers used during this protocol were made endotoxin free by passing over a 5-mL Mono-Q sepharose~~SEPHAROSE~~TM (Pharmacia) column. Protein was divided evenly between 4x 15mL tubes. The volume of each tube was brought to 9mL with Buffer A. 1mL of 10% Triton X-114 was added to each tube and incubated with rotation for 1 hour at 4°C. Tubes were placed in a 37°C water bath to separate phases. Tubes were spun down at 2,000rpm for 10

minutes and the upper aqueous phase from each tube was collected and the detergent extraction repeated. Aqueous phases from the 2nd extraction were combined and passed over a 5-mL IDA chelating (SigmaSIGMA™) column, charged with 0.1M NiCl₂ to remove remaining detergent. The column was washed with 9 column volumes of Buffer A before the protein was eluted with 3 column volumes of Buffer B. The eluant was passed over a 5-mL Detoxigel (SigmaSIGMA™) column and the flow-through collected and reapplied to the column. The flow-through from the second pass was collected and dialyzed in 1x PBS. The purified product was analyzed for concentration, purity and endotoxin level before administering to mice.

After Page 33, line 14, please insert the following new paragraph:

In accordance with the invention, monoclonal antibody H07 was deposited on April 11, 2007 at the American Type Culture Collection, Manassas, VA 20110-2209 USA, and was accorded Patent Deposit Designation PTA-8327.